

REMARKS

Claims 1-4, 7-11, 26, 27 and 33-42 remain pending in the present application. Claim 1 has been amended. Claims 33-42 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings as originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-4, 9, 10, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruggiero (US 4,878,770) in view of Tachi et al. (US 4,986,877). Claims 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruggiero (US '770) in view of Tachi ('877) as applied to Claim 1, and further in view of Stager et al. (US 5,372,673). Claim 1 has been amended to define that the forming of the mask on the conductive film occurs after the forming of the first opening.

The Examiner has stated that Tachi discloses the mask having a second opening which has an opening area smaller than that of the first opening and open in the first opening. However, in Tachi, the photo resist film 3 is formed before forming the first opening which is the upper portion of the opening of the aluminum film 2. As shown in Figure 1a, the photoresist film was used to create what is defined by the Examiner as the first opening. The etching is then continued, at a lower temperature to create the second opening (lower portion) as shown in figure 1b. Thus, the mask defined by the Examiner (photoresist 3) is formed before etching the first opening and not after forming the first opening as is now defined in amended Claim 1.

Thus, Applicant believes Claim 1, as amended, patentably distinguishes over the art of record. Likewise, Claims 2-4, 7-11, 26 and 27 which ultimately depend from Claim 1 are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

NEW CLAIMS


New Claim 33 is a dependent claim dependent on Claim 1. New Claim 34 is a new independent claim which defines the method according to the present invention. Claims 35-42 are dependent claims depending from Claim 34.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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ATTACHMENT FOR CLAIM AMENDMENTS

The following is a marked up version of each amended claim in which underlines indicates insertions and brackets indicate deletions.

1. (AMENDED) A method of etching a metallic film, comprising the steps of:

forming a metallic film on a thin film resistor;

forming a conductive film on the metallic film;

forming a first opening in the conductive film to expose the metallic film from the first opening;

forming a mask on the conductive film after forming the first opening, the mask having a second opening having an opening area smaller than that of the first opening and open in the first opening to expose the metallic film therefrom; and

etching the metallic film through the second opening.